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ABSTRACT

This competency-based preservice home economics teacher education module on technological, sociological, ecological, and environmental factors related to food is the first in a set of five modules on consumer education related to foods and nutrition. (This set is part of a larger series of sixty-seven modules on the Management Approach to Teaching Consumer and Homemaking Education [MATCHE]--see CE 019 901-967.) Following the module objective and overview, four units of instruction are presented: (1) the dietary goals for the United States and food choice; (2) impact of food technology and food choice; (3) food additives, chemicals in foods, and food choice; and (4) sociological, ecological, and environmental factors in food choice. Each unit generally includes the following elements: objectives, overview, narrative summary, pre/posttest, suggested activities, progress check, and suggested resources (readings). A module pre/posttest (with answer key) concludes the document. (Workshop proceedings relating to the development of these modules are available in the ERIC system as CE 019 896-899; also available is a module on utilizing FHA-HERO as an instructional strategy to expand and strengthen the home economics instructional programs [CE 019 900].) (JH)

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CONSUMER APPROACH STRAND:

FOODS AND NUTRITION

MODULE I-C-1 TECHNOLOGICAL, SOCIOLOGICAL, ECOLOGICAL, AND ENVIRONMENTAL FACTORS RELATED TO FOOD

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1978

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CE 019 911

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NATIONAL INSTITUTE OF EDUCATION

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MATCHE

Management Approach to Teaching Consumer and Homemaking Education

MATCHE is an individualized, competency-based preservice curriculum designed for home economics education students at the preprofessional, upper division level. MATCHE is a comprehensive curriculum based on selected objectives which give emphases in three areas: 1) consumer approach to homemaking education, 2) teaching home economics in economically depressed areas, and 3) establishing occupational programs related to home economics. The material for each subject matter area of home economics has been organized into these three strands, and includes an FHA-HERO emphasis. These subject matter areas are home economics education core, housing, foods and nutrition, textiles and clothing, human development, and management.

The MATCHE modules were written by subject matter specialists from various colleges and universities offering home economics and therefore each is unique in the approach used for the development of the objectives. The modules allow for differences in level of achievement, rate of learning, and learning goals. They may be used independently, combined into a sequential series, or as a random set of conceptual units. Any instructor using the material can easily adapt the material to a specific group of students, the locale, method of instruction, and available facilities. Learning may be facilitated by offering one module in conjunction with others.

As MATCHE is continuously up-dated by those using the curriculum, some concepts and objectives may be added and others deleted. The purpose is to continually strengthen the program for pre and inservice home economics teachers.

Guidelines for Use and Continuous Development of MATCHE are on file with Home Economics units in each of the fifty state departments of education plus all of the Home Economics Departments in California institutions offering home economics education. This booklet and proceedings from the four MATCHE workshops give background information concerning the purpose and development of the MATCHE project.

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MATCHE PROJECT

1974-1978

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TECHNOLOGICAL, SOCIOLOGICAL, ECOLOGICAL, AND ENVIRONMENTAL FACTORS RELATED TO FOOD

Module Objective

The MATCHE student will be able to recognize and describe the effects of technological advances and current sociological, ecological, and environmental trends which influence food processing, acceptance of foods, and changes in consumption patterns.

Module Overview

What people eat is affected not only by technological changes, medical and economic reasons, family and sociocultural background, agriculture and food availability, mass media advertising, but also by multiple forces creating what the Select Committee on Nutrition and Human Needs of the Senate of the United States called the "National Nutrition Environment."

It is believed that food habits of the people are fixed and resistant to changes and that there exist complex and varied influencing factors on food choices and selection. However, our eating patterns are not static. They do change. The direction of changes often reflects multi-factorial forces, especially from the nutrition environment of the country, as previously stated.

Changes in physical environment of the regions could bring about a decrease or increase in the supply of particular items and make them more or less available to the people. The inflation rate is recognized as a factor in food price increases, thus affecting the food-purchasing power of a person or family. The health values of certain foods also bring forceful changes in food attitudes; for example, the decreasing consumption of high fat, high cholesterol, and high sugar foods is due to the newer knowledge that the change could bring about preventive measures against the nutrition-related health problems.

The 1977 Dietary Goals of the United States already has had an impact on food choices of the population. The food additive scare has increased the sale of the so-called natural food products.

The present knowledge of drugs and diet interaction has made the public more aware of the effects of foods and medications. This also includes the natural toxicants in foods.

The increasing numbers of fast-food chains and franchises in the 1970s evidently indicate the changing trends in food consumption patterns. They also show the influence of the changes of the American life styles on food choices.

All these are just some samples of the impact leading to changes in food behavior of a person.

General Guide for Use of the Module

The module is presented in orderly sequence of units according to the following:

Unit 1: The Dietary Goals for the United States and Food Choice

Unit 2: Impact of Food Technology and Food Choice

Unit 3: Food Additives, Chemicals in Foods, and Food Choice

Unit 4: Sociological, Ecological, and Environmental Factors in Food Choice

Independent library study, field trips, and interviews are facilitated by providing wide range of selected and suggested resources in sequential citation for each unit. No one resource is comprehensive enough to enable you to complete the unit or fulfill module objectives.

Students may wish to study single units in this large module as if they were separate modules. Each unit is self-contained, with its own list of suggested resources, so that the module can actually be separated physically into four units. Also, students or instructors may want to select from among the activities rather than use all of them and may design other activities on their own.

UNIT 1

THE DIETARY GOALS FOR THE UNITED STATES AND FOOD CHOICE

Objectives

The MATCHE student will be able to list the major dietary goals for the United States population, as recommended by the Select Committee on Nutrition and Human Needs of the U.S. Senate.

The MATCHE student will be able to describe the reasoning and justification of the dietary recommendations.

Given the necessary information on nutrition-related health problems, the MATCHE student will be able to list the implications of dietary goals and make them available as an invaluable resource for any person who desires to change and improve the food consumption pattern to benefit his or her health and quality of life.

The MATCHE student will be able to recognize the nutrition policy of the country such as the dietary goals as a factor influencing changes in food choice and selection.

Overview

The Dietary Goals for the United States is the beginning of the development of a national health policy. Because of the existing nutrition-related health problems, preventive measures such as Dietary Goals will provide the people with information on the foods they eat and what they should eat. Therefore, it will help to change the diet patterns of the people for better health and nutrition.

Narrative Summary

The average diet of the United States has changed greatly in the last several years. People consume fewer complex carbohydrates, such as fewer grain products, fruits, and vegetables, and more sugar and fat. The overconsumption of the latter is related to six leading causes of death: heart disease(artherosclerosis), cancer, cerebrovascular disease, diabetes, arteriosclerosis, and cirrhosis of the liver.

Current trends in food practices may lead to serious malnutrition problems if they are not changed. Improper diets can also lead to obesity or disease. Food choice affects health, life span, physical fitness, body size, and central nervous system development.

UNIT 1

Pre/Posttest

The Dietary Goals for the United States and Food Choice

Time_____

Student_____

Instructor_____

Circle the letter in front of the right answer.

1. Which statements are correct?

   Dietary Goals for the United States recommends:

   a. increasing carbohydrate consumption to account for 55-60 percent of the energy (calories) intake.

   b. increasing saturated fat consumption to account for about 40 percent of the total energy intake.

   c. reducing overall fat consumption down to 30 percent of energy intake.

   d. increasing cholesterol consumption to about 2000 mg a day.

   e. reducing sugar consumption to about 15 percent of total energy intake.

   f. increasing salt consumption to about 3 g a day.

   g. decreasing consumption of fruits.

   h. increasing consumption of vegetables and whole grains.

   i. substituting nonfat milk for whole milk.

   j. increasing consumption of beef and decreasing consumption of poultry and fish.

2. Check the leading causes of death in the United States from the following list of nutrition-related health problems.

   a. Coronary heart disease

   b. Diabetes mellitus

   c. Cirrhosis of the liver

   d. Hypertensive cardio-vascular disease

   e. Obesity

   f. Cancer

   g. Stroke

3. United States Nutrition Policy can effect change in food consumption patterns, even if it is evident that food habits of the people are fixed and resistant to change.

( ) True ( ) False

4. The use of canned fruits enables greater protection against hidden sugar.

( ) True ( ) False

5. Circle the food items containing high amounts of complex carbohydrates.

a. refined sugar b. sugar crisp c. wholewheat bread

d. ripe persimmon e. celery f. romaine lettuce

g. string beans h. broccoli

6. The Dietary Goals for the United States recommend that we eat more of:

(1) syrups (2) molasses (3) honey (4) fresh fruits
(5) refined sugar (6) canned fruits with heavy syrup
(7) unsweetened fruit juices

a. 1, 2, and 5 b. 4, 6, and 7 c. 1, 2, 3, 5, and 6

d. all of these

7. The Dietary Goals for the United States recommend that we eat more of:

(1) beef (2) ham (3) liver (4) pork (5) chicken
(6) turkey (7) clams and lobster (8) fish (9) lunch meats

a. 1, 2, 3, 4, and 9 b. 1, 2, 3, 4, and 7 c. all of these

d. 5, 6, and 8

8. The Dietary Goals for the United States recommend that we eat less of:

(1) egg (2) bacon fat (3) butter (4) salt pork
(5) liver (6) sausage (7) lard (8) candy

a. 1, 2, 3, and 5 b. 4, 6, and 7 c. 1, 5, and 8

d. all of these

9. Food availability can bring change to food consumption patterns.

( ) True ( ) False

10. "National nutrition environment" means that people will always eat what they always eat, regardless.

( ) True ( ) False

Answer Key
Pre/posttest

Unit 1

1.	a,c,e,h,i	5 points
2.	all	7 "
3.	True	1 "
4.	False	1 "
5.	c,e,f,g,h	5 "
6.	c	1 "
7.	d	1 "
8.	d	1 "
9.	True	1 "
10.	False	1 "
	Total =	24 "

24 = A

19 = B

14 = C

9 = D

Suggested Activities--(Independent Library Study)
Unit 1

A. 1. Make a list of the Dietary Goals for the United States

2. List the recommended changes in food selection and preparation.

Resource List: See 1,6,8,26, and 36.

3. Read Resource No. 32. Do you agree or disagree with the Pro's or Con's of the United States Dietary Goals? State your reasons.

Resource List: See 32.

4. List and describe nutrition and health problems as related to diet and food habits as a principal risk factor.

Resource List: See 2,3,4,5,11,12,13,14,17,19,21,22,23,24, 27,29,34,and 35.

B. 1. Describe in your own words the national nutrition and health policy as an important factor in changing food consumption patterns of the population, with special emphasis on the dietary goals for the United States.

(about 1000 words, approximately 4 pages, typewritten, double-spaced)

Resource List: See 3,6,8,10,15,16,18,20,22,25,26,28,30, and 32.

All activities should be submitted to and discussed with your instructor.

After you finish the above activities, review the lesson by answering the questions in the progress check.

Unit 1
Progress Check

1. What are the purpose and objectives of the Dietary Goals for the United States?

2. What are the six leading causes of deaths in the United States in relation to present food consumption patterns?

   a. b.

   c. d.

   e. f.

3. What are the changes recommended for better food choice and selection of the United States population?

   a. b.

   c. d.

   e. f.

4. What are the implications of the Dietary Goals for the United States to the population?

5. What are the effects of the White House Conference on Food and Nutrition on the food choice of the population?

After the self-test, secure from your instructor the Unit 1 Posttest.

Suggested Resources
Unit 1

1. Celender, I.M., et al. A Status Report on the American Diet and Health. Minneapolis: General Mills, Nutrition Dept., 1977.

2. Connell, A.M. "Wheat Bran as an Etiologic Factor in Certain Diseases, Journal of the American Dietetic Association, 71 (September, 1977), 235-239.

3. Cote, P. People, Food, and Science. Lexington, Massachusets: Ginn and Co., 1972.

4. "Diet and Birth Defects in Humans," Nutrition Today, (July/August, 1974), 9.

5. "Diet and Coronary Heart Disease," Nutrition Today, 10 (January/February, 1975), 16-18, 24-27.

6. "Dietary Goals for the United States," Nutrition Today, 12 (September/October, 1977), 20-30.

7. Food and Nutrition Board, National Research Council: Recommended Dietary Allowances. Washington, D.C.: National Academy of Sciences, 1974.

8. Forum on Dietary Goals for the United States. J.C. Penney Forum. pp. 14-17, Fall/Winter, 1977.

9. Gifft, H.H., M.B. Washbon, G. Fail. Nutrition, Behavior, and Change. Englewood Cliffs, New Jersey: Prentice-Hall, 1972.

10. Goldsmith, G.A. "For a National Nutrition Policy," Nutrition Today, 8 (July/August, 1973), 32-35.

11. Howard, A.N., and I.M. Baird, eds. Nutritional Deficiencies in Modern Society. London: New Books, 1973.

12. James, L.F. "Diet-Related Birth Defects," Nutrition Today, 9 (July/August, 1974), 4-11.

13. Lappe, F.M. Diet for a Small Planet. New York: Ballantine Books, 1972.

14. Leveille, G.A. "Meal Eating and Obesity," Nutrition Today, 9 (November/December, 1974), 4-9.

15. Lowenberg, M.E., et al. Food and Man. New York: John Wiley and Sons, 1974. pp. 117, 233.

16. Mayer, J., ed. U.S. Nutrition Policies in the Seventies. San Francisco: W.H. Freeman, 1973 (Part 2).

17. McGill, H.C., and G.E. Mott. Diet and coronary heart disease. Present Knowledge in Nutrition. Washington, D.C.: The Nutrition Foundation, 1976, pp. 376-391.

18. Mead, M. "A Perspective on Food patterns," J.C. Penney Forum, Fall/Winter, 1977, pp. 2-3.

19. "Nutrition, Diet, and Cancer," Dairy Council Digest, 46 (September-October, 1975).

20. "Official Statements of Guidelines for a National Nutrition Policy," Nutrition Today, 9 (March/April, 1974), 33-35.

21. Oiso, T. "Incidence of Stomach Cancer and Its Relation to Dietary Habits and Nutrition in Japan between 1900 and 1975," Cancer Research, 35 (1975), 3254.

22. Paarlberg, D. "Food and Economics," Journal of the American Dietetic Association, 71 (August 1977), 107-10.

23. Pyke, M. "Scientific Technology and the Mercenary Society," Journal of Nutritional Education, 1 (Winter 1970), 20.

24. Schaefer, A.E. Findings and Implications of the National Nutrition Survey. Dimensions of Nutrition. Boulder, Colorado: Colorado Associated University Press, 1970, p. 243.

25. Scientific American: Food. San Francisco: W.J. Freeman, 1973.

26. Select Committee on Nutrition and Human Needs, United States Senate: Dietary Goals For the United States. Washington, D.C.: U.S. Government Printing Office, 1977.

27. Speckmann, E.W. "Coronary Heart Disease: A Scientific Imbalance," Nutrition Today, 10 (January/February, 1975), 30-33.

28. Summary Report: White House Conference on Food, Nutrition and Health. Washington, D.C.: U.S. Government Printing Office, 1970.

29. Symposium: Nutrition in the causation of cancer. Cancer Research. 35: No. 11, Pt. 2, November, 1975.

30. U.S.D.A. The Yearbook of Agriculture, Food For Us All. Washington, D.C.: U.S. Government Printing Office, 1969.

31. U.S.D.A. The Yearbook of Agriculture, That We May Eat. Washington, D.C.: U.S. Government Printing Office, 1975.

32. "U.S. Dietary Goals," Journal of Nutritional Education, 9 (October-December, 1977), 152-57.

33. Williams, R.J. Nutrition Against Disease. New York: Pitman Publishing, 1971.

34. Wynder, E.L. "The Dietary Environment and Cancer," Journal of the American Dietetic Association. 71 (October, 1975), 385-391.

35. Wynder, E.L. "Status of Research on Nutrition and Cancer: Concluding Remarks," Cancer Research, 35 (1975), 3548.

36. Zolber, K.K. "Nutrition and You," Life and Health, December, 1977, pp. 18-21.

UNIT 2

IMPACT OF FOOD TECHNOLOGY AND FOOD CHOICE

Objectives

The MATCHE student will be able to list the trends and current food processing methods.

The MATCHE student will be able to list the new food trends because of consumer needs and demand.

Given the necessary information, the MATCHE student will be able to recognize the food and agriculture technological advances as a factor influencing the consumer's food choice.

Overview

Food technology has a direct impact on the American way of selecting and consuming foods. Innovative food processing make more available agricultural farm products as well as food substitutes, such as meat protein analogs. New developments also help certain individuals with special diet problems easily obtain modified food items to suit their nutrition and health needs. These technological advances dictate the direction of changes of the food patterns of the American people.

Narrative Summary

Since the Industrial Revolution, the development of American food habits has been influenced by scientific and technological progress in agriculture and food processing. The dietary patterns of each decade reflect the food trends of the period. Varieties of foods are increasingly available to meet the special needs of majority of the population. The rapid food transport system also makes all kinds of foods readily available to all segments of the United States population. Therefore, technology plays an important role in food choice and selection.

UNIT 2

Pre/Posttest

Impact of Food Technology and Food Choice

Time_____

Student_____

Instructor_____

1. There are numerous historical food preservation techniques (preindustrial era) that are being used today. List at least ten of them.

a. b.

c. d.

e. f.

g. h.

i. j.

2. List at least ten food processing techniques which have come into being during the Industrial Era.

a. b.

c. d.

e. f.

g. h.

i. j.

3. Describe the food processing technique used for each of the following:

	Processing technique used
a. whole milk (fluid)	
b. fully cooked ham	
c. canned food products	
d. smoked turkey	
e. perishable foods	
f. concentrated fruit juices	
g. sweetened condensed milk	
h. nonfat milk powder	

	Food processing technique used
i. cereals	_____
j. vegetable oils	_____
k. sauerkraut	_____
l. relishes	_____
m. wines	_____
n. yogurt	_____
o. ice cream	_____

4. Indicate the specific use of each of these items:

	For the use of
a. low calorie Italian dressing	_____
b. soy meats	_____
c. sugarless soft drinks	_____
d. low sodium milk	_____
e. unsalted margarine	_____

5. List and describe at least two new sources of protein.

a.

b.

6. List at least four food items in the marketplace showing nutritional consideration in applying food technology knowledge.

a. b.

c. d.

Answer Key
Pre/posttest

Unit 2

1. Food preservation techniques of the Preindustrial Era:

a. smoking	b. drying	c. salting
d. fermentation	e. freezing	f. freeze-drying
g. fat-embedding	h. sugar preserving	i. chemical preservation
j. chilling	k. dairying	l. curing
m. pickling		

(10 points)

2. Food processing techniques of the Industrial Era:

a. natural ice and chilling; refrigeration		
b. freezing	c. canning	d. pasteurizing
e. drying	f. freeze-drying	g. salt-curing and smoking
h. fat-embedding	i. concentrating-evaporating	
j. fermentation	k. filtration	
l. food-extracting (sugar and fat)		

(10 points)

3.

Foods	Present food processing techniques
a. whole fluid milk	Pasteurization
b. fully cooked ham	boiling
c. canned food products	sterilizing
d. smoked turkey	smoking
e. perishable foods	refrigeration
f. concentrated fruit juices	concentrating
g. sweetened condensed milk	concentrating
h. nonfat milk powder	drying
i. cereals	milling
j. vegetable oils	pressing
k. sauerkraut	brining
l. relishes	pickling
m. wines	alcoholic fermentation
n. yogurt	acid fermentation
o. ice cream	freezing

(15 points)

4.

Specific uses of	For
a. low calorie Italian dressing	reducing and weight watching
b. soy meats	vegetarian diet and cholesterol-free foods
c. sugarless soft drinks	diabetics and sugar-restricted diets
d. low sodium milk	sodium-restricted diet
e. unsalted margarine	sodium-restricted diet

(10 points)

5. New sources of proteins

a. soy meat products: Baco
b. seed products
c. oilseed protein
d. coconut protein
e. leaf protein
f. high lysine corn

(2 points)

6. Examples of foods

a. fortified Vitamin D milk
b. fortified Vitamin C drinks
c. enriched cereals
d. Vitamin-fortified, low-fat milk

(8 points)

Total points = 55 points

55 = A

45 = B

35 = C

25 = D

Suggested Activities--(Independent Library Study and Field Trips)
Unit 2

A. 1. Select a local supermarket and pay a visit. Carefully list the new food items on the shelves or displayed in the freezer or refrigerated storage that are unfamiliar to you and categorize them in an orderly manner according to the Basic Food Groups, in order to determine the number of new food products marketed this year. Describe also the processing techniques used for each item, ingredients listed, packaging, and shape and size, if available.

Resource List: See 39,41,43, and 47.

2. List and compare the processing techniques used in history with the ones currently used by the food industry. Note the similarities and differences.

Resource List: See 38,39,41,43, and 48.

3. List the modified food items available for the persons with various nutritional disorders, as shown in the ads of the current copies of the Journal of the American Dietetic Association.

Resource List: See 42.

B. 1. List new sources of protein foods.

2. Describe the nutritional implications of food technology.

3. Describe the advances in agriculture and food technology as an important factor in changing food consumption patterns of the population.

Resource List: See 23,25,31,40,41,43,44,46,49,50, and 51.

All activities should be submitted to and discussed with your instructor.

After you finish the above activities, review the lesson by answering the questions in the progress check.

Unit 2
Progress Check

1. What are the current advances in agriculture and food technology?

2. List the present food processing techniques being used and give examples of typical products in the marketplace.

3. List the new food items currently available and their implications on the changing food habits of the population.

4. Describe the reasons for the fortification or enrichment of certain foods.

After the self-test, secure from your instructor the Unit 2 Posttest.

Suggested Resources
Unit 2

23. Pyke, M. "Scientific Technology and the Mercenary Society," Journal of Nutritional Education. 1 (Winter 1970), 20.

25. Scientific American: Food. San Francisco: W.H. Freeman, 1973.

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UNIT 3

FOOD ADDITIVES, CHEMICALS IN FOODS, AND FOOD CHOICE

Objectives

The MATCHE student will be able to list the current uses of additives on handling, processing, packaging, and distributing of food commodities.

The MATCHE student will be able to list some chemicals in common foods which could produce a vast spectrum of mental and physical reactions and cause change in the consumption pattern of certain individuals.

The MATCHE student will recognize the effects of chemical reactions of foods and food additives as an important factor in causing change in the food choice of people.

When given the necessary information, the MATCHE student will recognize the chemical environment of sense and nonsense in food choice and selection, and be able to list the influencing factors.

Overview

A number of people choose not to consume any processed food because of additives and the possible chemical effects on their health and nutrition. Natural foods or unprocessed foods are preferred. In reality, there exist also natural toxicants in common foods which could cause an adverse reaction to some.

The use of additives is generally beneficial. Only the amount consumed should be of concern. Food and nutrition misinformation on additives and chemicals in foods influences greatly the food choice of the consumer.

Narrative Summary

Foods are made of different kinds of chemicals. There are also a great number of naturally occurring toxicants in foods which can produce adverse effects. Some disappear during processing. The chemicals in foods can also indirectly interact with any medications we take and some reactions can be serious.

A food additive is any safe substance added to a food, depending on the purpose. Its possible toxicity depends on the amount consumed and a person's sensitivity.

Some people choose to eat only natural foods which are unprocessed and have no additives, because of the "additive scare" or allergic reaction to some chemicals in foods.

Knowledge of food facts and additives has been an important factor for some people in deciding what food to eat.

UNIT 3

Pre/Posttest

Food Additives, Chemicals in Foods, and Food Choice

Time_____

Student_____

Instructor_____

1. Describe the following:

   a. a food additive

   b. processed foods

   c. caffeine

   d. natural foods

   e. health foods

   f. organic foods

   g. enriched cereals or bread

   h. wholesomeness of foods

2. Circle any additives familiar to you and indicate their use in common foods.

	Uses
a. vitamin D	_____
b. iron	_____
c. thiamine, riboflavin, and niacin	_____

Uses

d. sodium proprionate _____

e. sodium benzo te _____

f. BHA _____

g. salt _____

h. sugar _____

i. monosodium glutamate _____

j. sulfur dioxide _____

k. carotene _____

l. lecithin _____

m. eggs _____

n. gelatin _____

o. vitamin E _____

p. lactic acid _____

q. acetic acid _____

r. vitamin C _____

3. List your concerns regarding foods and the criteria you use in selecting foods.

Concerns

Criteria

4. a. Describe the FDA and its function.

b. What is the GRAS list?

5. There are chemicals in common foods causing allergic reactions to some. Match the chemicals with the foods and the reactions (can be several).

Chemicals		Reactions	
Caffeine	Sugar	Hyperactive in children	
Wheat protein	Corn protein	Insomnia	Sleeplessness
Milk protein	Salt	Headache	
Chlorine	Tyramine	Frequent urination	Depression
Diuretic	Licorice	Diarrhea	Burning eyes
		Elevated blood pressure	

Foods	Chemicals in Foods	Reactions
Water	_____	_____
Coffee	_____	_____
Wheat bread	_____	_____
Milk	_____	_____
Candy	_____	_____
Cornbread	_____	_____
Lunch-meat	_____	_____
Cheddar cheese, beer, and wine	_____	_____
Dandelion greens	_____	_____
Licorice candy	_____	_____

6. Fill in the blanks.

a. Preservatives are _____

_____

Example: _____

b. Ethyl Vanillin is used as _____

Example: _____

c. Some natural flavoring agents used as additives are _____,

_____, _____, _____, _____, and

_____.

d. During processing, many foods change color, thus color is added to some foods, such as _____, _____,

_____, _____, _____, and

_____.

e. Natural leavening agents known before the chemical reaction of leavening was understood are _____ and _____.

f. Most commercially used stabilizers and thickeners today are pure plant extracts such as _____ and _____.

g. Gelatin also is used as _____ agent.

h. Emulsifiers play important roles in the _____ industry. They help to increase volume, uniformity, and fineness of grain, and they make doughs easier to handle.

i. The most widely used natural emulsifier is _____, which is obtained from plant and animal tissue.

j. To prevent softening of vegetables and fruits during the canning or bottling process, _____ salts are added to peas, beans, and others before cooking.

k. Vitamin E is a natural _____.

l. The chemicals most widely used by food processors to control both _____ and _____ are BHA and BHT.

m. Sequestrants play an important role in preventing _____ of what should be a clear soft drink. The best known is EDTA.

n. Among the natural chelates are _____, the green pigment of plants, and _____, the pigment of the red blood cells.

7. Circle the processed foods appearing in a typical American diet pattern.

Breakfast	Lunch
reconstituted orange juice	cheese burger with sesame seed buns
quick oatmeal	mustard, catsup, relishes
sugar	soft drink
homo. past. vit. D milk	canned peaches
coffee with cream, half and half	

Dinner	Before bedtime
macaroni and cheese	commercial yogurt
tomato and lettuce salad with bottled Italian dressing	tea (powdered)
refrigerated rolls	
canned fruit cocktail	
homo. past. vit. D milk	

8. List and describe food and nutrition misinformation as an influential factor leading the consumer to choose natural and health foods.

Answer Key
Pre/posttest

Unit 3

1. a. a food additive: a substance, synthetic or natural, added to food as a food ingredient, by regulation.

   b. processed foods: foods which are prepared and manufactured according to specific standards.

   c. caffeine: a chemical substance occurring naturally in food, especially coffee.

   d. natural foods: unprocessed and unrefined foods, untreated by any chemicals (synthetic).

   e. health foods: the so-called foods sold at the health food stores, assumed to have no synthetic chemicals and unprocessed.

   f. organic foods: food grown naturally without any chemical fertilizers, but with organic fertilizers.

   g. enriched cereals or bread: those fortified with vitamins and minerals.

   h. wholesomeness of foods: safe and uncontaminated foods and nutritious.

(16 points)

2. Some additives and their uses

a.	vitamin D	fortification of milk
b.	iron	fortification of cereals
c.	thiamine, riboflavin and niacin	fortification of cereals and its products
d.	sodium proprionate	retard spilage, as preservative for breads
e.	sodium benzoate	prevent mold, as preservative in catsup
f.	BHA	prevent rancidity, as preservative in foods
g.	salt	preserve foods, as preservative in sauerkraut or vegetables, in meats
h.	sugar	preserve fruits or as flavoring
i.	monosodium glutamate	flavor enhancer in foods
j.	sulfur dioxide	chemical preservative in dried fruits
k.	carotene	coloring agent in margarine, also as supplement
l.	lecithin	emulsifying agent in mixes
m.	eggs	a binder in foods
n.	gelatin	thickening agent

o.	vitamin E	antioxidant in oils
p.	lactic acid	acid fermentation of milk
q.	acetic acid	in vinegar, in acid fermentation
r.	vitamin C	antibrowning agent in fruits and vegetables, as supplement

(50 points)

3. Concerns:
   a. safe foods to eat
   b. what foods to eat
   c. what to believe
   d. truth about food additives

   Criteria:
   a. wholesomeness
   b. safe and uncontaminated
   c. nutritious
   d. most economical

(8 points)

4. a. FDA Food and Drug Administration, a federal consumer protection agency concerning food and drugs.

   b. GRAS List of additives generally regarded as safe.

(4 points)

5.

Foods	Chemicals	Reactions
water	chlorine	burning eyes
coffee	caffeine	insomnia
wheat bread	wheat protein	diarrhea
milk	milk protein	diarrhea
candy	sugar	depression
cornbread	corn protein	diarrhea
lunchmeat	salt	elevated blood pressure
cheddar cheese, beer and wine	tyramine	headache
dandelion greens	diuretic	frequent urination
licorice	licorice	hyperactive in children

(10 points)

6. a. Preservatives are chemicals added to foods to inhibit or prevent growth of bacteria. Oldest type of additives.

   Example: salt, sugar and benzoic acid.

   b. Ethyl vanillin is used as synthetic flavoring agent.

   Example: chocolate and vanilla flavor.

   c. Some natural flavoring agents used as additives are dill weed, pepper, clove, cinnamon, rosemary and thyme.

   d. During processing, many foods change color. Color is added to some foods such as soft drinks, cheese, butter, ice cream, and cake mixes. (breakfast cereals, sausages, puddings)

   e. Natural leavening agents known before the chemical reaction of leavening was understood are yeast and bacteria.

   f. Most commercially used stabilizers and thickeners today are pure plant extracts such as a-gar from seaweed extracts, and gum arabic (from tree exudate).

   g. Gelatin also is used as thickening agent.

   h. Emulsifiers play important roles in the baking industry. They help to increase volume, uniformity, and fineness of grain, and they make doughs easier to handle.

   i. The most widely used natural emulsifier is lecithin, which is obtained from plant and animal tissues.

   j. To prevent softening of vegetables and fruits during the canning or bottling process, calcium salts are added to peas, beans, and others before cooking.

   k. Vitamin E is a natural antioxidant.

   l. The chemicals most widely used by food processors to control both rancidity and browning are BHA and BHT.

   m. Sequestrants play an important role in preventing clouding of what should be clear soft drink. The best known is EDTA.

   n. Among the natural chelates are chlorophyll, the green pigment of plants, and hemoglobin, the pigment of red blood cells.

(34 points)

Answer Key (continued)

7. All except tomato and lettuce. (20 points)

8. Food and nutrition misinformation influencing food choice, especially natural foods:

   a. The food additive scare and misunderstanding of the additives' uses in foods.

   b. The information that natural foods and health foods are better nutritionally.

   c. The search for a diet that can cure or prevent cancer.

   d. The distrust of processed foods without knowledge of facts.

   e. Misinformation on chemicals in foods, synthetic and natural.

   (10 points.)

Total = 152 points

152 = A

122 = B

102 = C

82 = D

Suggested Activities--(Independent Library Study)
Unit 3

A. 1. Define the following:

a. additive

b. chemical

c. processed food

d. natural food

e. wholesomeness of food

2. List broad categories of food additives and their uses.

a.

b.

c.

d.

e.

f.

g.

h.

Resource List: See 25,63,64,71,82, and 87.

B. 1. List and describe consumers' concerns regarding food additives.

Resource List: See 46,56,63,70,71,73,74,84,86, and 87.

2. Describe the GRAS list.

Resource List: See 64.

3. Describe the FDA as a consumer protection agency concerning food safety.

Resource List: See 46,56,61,63,64,75,85, and 90.

C. 1. List natural toxicants in common foods and possible effects.

Resource List: See 53,54,60, and 77.

2. List and describe the possible effects of drugs and diet interaction.

Resource List: See 55,58,66,78, and 82.

D. 1. Use the Resource List: 59,60,61,65,75, and 90. Answer the following questions:

a. Are additives necessary?
b. Are processed foods nutritious?
c. Are processed foods safe to eat?
d. Are natural, organic, and health foods free of chemicals and contaminants?
e. Why do we enrich and fortify foods?
f. Are our foods in general safe to eat?
g. Is label information a sufficient guideline to selecting food to eat?

2. Read Resource List: 81,and 91. Describe the controversy over sugar in the diet and the consumer's confusion in deciding whether or not to use sugar.

3. List and describe the influential factors of nutrition misinformation and food faddism affecting consumers' food choice which could be detrimental to health and nutrition.

Resource List: See 46,52,56,57,62,67,69,70,88, and 89.

E. Summarize the impact of food and nutrition misinformation concerning food additives and processed foods on consumer's food choice.

Resource List: See 64,69,72,74,75,87, and 88.

All activities should be submitted to and discussed with your instructor.

After you finish the above activities, review the lesson by answering the questions in the progress check.

Unit 3
Progress Check

1. List the needs for and advantages of additives used in food processing.

2. List criteria to judge the wholesomeness of foods.

3. List nutrition and health hazards in consuming natural and organic foods and practicing food faddism.

4. List the function of FDA as a consumer food protection agency.

5. List chemicals in some common foods known to cause allergic reactions.

6. Describe food and nutrition misinformation as an influencing factor in consumer food choice.

7. List the influencing factors causing concerns regarding food consumption.

After the self-test, secure from your instructor the Unit 3 Posttest.

Suggested Resources
Unit 3

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75. Norman, C. "New Food Regulations Make Strange Bedfellows," Nutrition Today, 8 (September/October, 1973), 20-21.

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UNIT 4

SOCIOLOGICAL, ECOLOGICAL, AND ENVIRONMENTAL FACTORS IN FOOD CHOICE

Objectives

The MATCHE student will be able to list the effects of changes in the life styles, value concepts, and food habits on food choice and consumption patterns.

The MATCHE student will be able to list the effects of ecological factors on food choice.

The MATCHE student will be able to discuss the impact of changes in physical environment of food supply as a factor of food choice.

Given the necessary information, the MATCHE student will be able to describe the current trends of consumers' food choice and acceptance as influenced by the changes in food and nutrition environment.

Overview

People choose foods to eat to suit their life styles and the society they live in, considering the availability and accessibility of the foods. American people in general now eat one meal away from home each day. Convenience and fast foods have become part of American life. When the supply of certain foods decreases because of changes in the physical environment in which they live, the food consumption pattern also reflects alternate choices.

Ecological consciousness and the desire for healthful living are making the American people more aware of the wholesomeness of foods; they choose only foods conforming with their value concepts.

Narrative Summary

The food habits of people are culturally oriented by the society they live in. A close relationship exists between people's life style and what they choose to eat. The activities of people in many ways influence their eating patterns, and in addition, those of the others in the same social group. The interrelationships and the interactions of society, culture, and the individual are a great part of life. As

members of human society, people learn to live and work together. Thus changes in social conditions influence people's way of life, especially in eating.

Americans live in a complex society with a number of subcultures with different ways of living, traditions, and values. Social classes, race, ethnic background, and position in various occupations have various effects on life styles and foods people choose to eat.

Each generation's food consumption pattern reflects the dynamics of social changes. Also, there are always new concepts of time and leisure, and at times old guidelines as to what to eat are considered inoperative and not practical. At present, there is little leisure time and people seem to work more hours and hold more jobs in pursuit of goals and dreams or for economic reasons. The household size is also becoming smaller and smaller. About thirty-eight million women are working outside the home. Fast foods are a part of daily diets of many.

In addition, natural phenomena can decrease or increase the food supply of certain regions of the United States, such as the drought in the West and the freeze of 1976 in Florida. The availability of fruits and vegetables often depend on the weather. If they are not plentiful, the consumer will seek alternates. Food choice then is changed.

The rapid transportation system is also important. We travel faster, and more and more often. Convenience and fast foods along the travel route have become a way of life; and travel adds once unfamiliar foods to the diet.

War, famine, economic pressure, and energy conservation add to the list of factors which influence our daily food choice.

Ecological concerns and a desire for wholesome foods have increased the revival of "grandma's cooking" with less energy spent and fewer additives.

The food consumption patterns of the 1970s present a great contrasting mixture of products of technological advances and the consumers' longing for naturalness in foods.

UNIT 4

Pre/posttest

Time_____

Sociological, Ecological, and Environmental Factors in Food Choice

Student_____

Instructor_____

1. List the impact of changes on our life styles for each decade since the 1930s, with special reference to the influence of historical events and social scenes.

Example:

The 1930s Impact	Changes and Food Choice
Wall Street crash	Dollar conscious in food buying
Scarcity of money	Less purchasing power
Depression	
Unemployment	
Reconstruction period	Regional food choice
More travel	Motel foods while traveling

The 1940s Impact

The 1950s Impact

The 1960s Impact

The 1970s Impact — Changes and Food Choice

2. Describe the awareness of natural resources and the ecological concerns on foods; and its impact on food consumption of present day.

3. Describe your present food habits and the changes you have made during the last ten years because of sociological influences.

Pre/posttest (continued)

4. The following is a list of foods either familiar and unfamiliar to you. Please check the appropriate columns:

Foods	Familiar	Unfamiliar	Frequency of Eating/Week								
			0	1	2	3	4	5	6	7	More than 7 times
Macaroni & cheese											
Daffodil cake											
Cheese-burger											
Submarine sandwich											
Pizzas											
Pancakes											
Chip & dip											
Stuffed Veg.											
Ice cream											
Caesar salad											
Hot dogs											
Chinese food											
Soul food											
Chicken Kiev											
Beef Bourgignon											
Chicken Cacciatore											
Gazpacho											
Tempura											
Fondue											
Chicken curry											
Wholewheat products											
Bran											
Honey											
Wheatgerm											
Carob cake											
Yogurt											
Diet drinks											
Nonfat milk											
Crêpes											
Stews											
Low calorie foods											
Fried chicken											
TV dinners											

5. Using the list of foods in Question 4, regroup the foods according to what period they began to be popular.

1930s

1940s

1950s

1960s

1970s

6. List at least twelve important trends in food consumption of the 1970s.

a. b.

c. d.

e. f.

g. h.

i. j.

k. l.

Answer Key
Pre/posttest

Unit 4

1.

The 1940s Impact Historical Events and Social Scenes	Changes and Food Choice
World War II	Food shortage; one dish oven meals
Women working	Victory Gardens
Train traveling	Canning
	Food preservation
Effect after the war	Food and gas rationing
Baby boom	Foods from train traveling
Recovery period	
The 1950s Impact	
Sputnick	Specialty foods: pancake houses; pizzas; submarine sandwiches
Television	Foreign foods
Korean conflict	Kitchen gadgets
Hungarian refugees	Outdoor grills
More leisure time	Snacks
Culinary conscious	
The 1960s Impact	
Space age	Trying new foreign foods
"Camelot" years	Ethnic awareness
Peace Corps	Wok and hibachi cooking
Subcultural groups	Smorgasbord
Flower children	Soul food
Zen Macrobiotic	Brunch
Hare Krishna	Health and organic food movement
Feminine movement	Vegetarianism
Women's Lib	Convenience foods
The 1970s Impact	
More working women	Fast food boom
More singles	More eating out
Smaller family size	
Ecology and consumerism	Vegetarianism booming
Health consciousness	Health foods and natural foods
Protein food sources	Vegetagle protein food sources
Unisex period	Meatless or less meat diets
More travels and more recreation	Home cooking/old-fashioned foods (stews and homebaked breads)
Computer age	Whole grains
Calculator	Packaging labeling
Metric system	Portable and compact equipment
Dietary Goals for the United States	More fruits and vegetables
Energy-saving consciousness	Nostalgic cooking and imitation food

The 1970s Impact	Changes and Food Choice
Naturalness	Radar range and electronic cooking
More aged people	Ethnic foods
Increasing alcoholism	Reducing diets and low calorie cooking
Vietnamese immigrants	
Political polarization--Watergate conflict	Southern cooking

(40 points)

2. Awareness of natural resources and ecological concerns on foods and its impact on food choice:

   a. Appreciation of nature and awareness of conservation of natural resources
   b. Desire for wholesomeness of foods, so more fresh fruits and vegetables and whole grains
   c. More unprocessed foods
   d. No chemical additives or preservatives
   e. Search for natural sources of sweetness
   f. Carob instead of chocolate
   g. Caffeine-consciousness
   h. Less fat and fewer calories
   i. Energy-saving cooking of foods
   j. Old-fashioned cooking and foods

(10 points)

3. (Students should be able to describe the influence of the 1960s and 1970s on their food habits and food patterns; the instructor can use the key to Question 1, the section on 1960s and 1970s, as a guide in grading the essay answer.) (10 points)

4. (The instructor can use this question to survey the foods and food habits of the students taking the test. There is no grade for this question, but answers can be used for discussion.)

5.

Foods Popular in the 1930s	1950s
Macaroni and cheese	Cheeseburger
Daffodil cake	Submarine sandwiches
Ice cream	Pizzas
	Pancakes
1940s	Stuffed vegetables
Caesar salad	Chip and dip
Hot dogs	Chicken curry

Foods Popular in the 1960s	1970s
Chinese food	Wholewheat
French food	Bran
Tempura	Honey
Fondue	Wheatgerm
Beef Bourgignon	Carob cake
Chicken Kiev	Yogurt
Chicken Cacciatore	Diet drinks
Soul foods	Nonfat milk
Gazpacho	Crepes and quiche
TV Dinners	Fried chicken
Tacos	Low calorie foods

(25 points)

6. Food Trends of the 1970s
   a. Dietmania, especially liquid protein diets
   b. Eating out more
   c. Fast foods
   d. Convenience foods
   e. Old-fashioned cooking and foods
   f. Soup and sandwiches craze
   g. Whole grain-honey-molasses
   h. Sugarless diet
   i. Less fat
   j. More fruits and vegetables
   k. Gourmet foods
   l. Cultural and ethnic foods
   m. High fiber foods
   n. Less alcohol
   o. Vegetarian diets
   p. Eat-on-the-run diet or foods
   q. Truth-in-foods labeling and truth-in-menu

(10 points)

Total points = 95

95 = A

85 = B

75 = C

65 = D

Suggested Activities--(Independent Library Study and Interviews)
Unit 4

A. 1. List and describe the impact of changes in our life styles during each decade since the 1930s, leading to the development of food habits in the 1970s.

Resource List: See 1,9,15,94,95,97,99,100,101,102,103, 106,109,112,115,117,118,119, and 125.

2. Describe the ecological concerns of Americans and their influence on food selection.

Resource List: See 9,13,19,56,62,94,98,100,104,105,110, 112,116,119,123,124, and 130.

3. List the changes in physical environment of foods and their effects on our food consumption patterns.

Resource List: See 3,45,56,93,96,103,105,118,121,122,127, and 128.

B. 1. Interview three students from foreign countries on campus and ask them whether their food habits have changed, especially because of changes in food environment. List both positive and negative effects on their present food patterns.

Resource List: See 3,9,15, and 129.

2. Describe your food experiences in relation to close socialization and communication with foreign and ethnic students. Have your food habits and patterns changed? List any foreign and ethnic foods that you have added to your diet.

Resource List: See 9,13,15,109, and 112.

3. Describe your present food pattern and list any changes which have occurred in the last ten years. Indicate whether your food choice has been influenced by the sociological, ecological, and environmental trends of the decade.

Resource List: See 8,9,13,15,92,94,96,97,99,110,111,114, 117,118,122,127,128, and 130.

C. 1. List with a short description the trends of consumers' food choices and acceptance as influenced by changes in the food and nutrition environment in the United States.

Resource List: See 1,8,13,56,92,94,95,96,97,99,100,101,102, 103,105,106,197,108,110,111,114,117,118,122, 123,126,127, and 128.

All activities should be submitted to and discussed with your instructor.

After you finish the above activities, review the lesson by answering the questions in the progress check.

Unit 4
Progress Check

1. In the last fifty years, what have been the various changes influencing the food consumption patterns and food choices of the American people?

2. What are the ecological concerns that influence the consumers' food choices?

3. What are various impacts of changes in food environment on consumers' food choices?

4. What are the present food trends of consumers, as influenced by the changing life styles?

5. Visualize yourself being transplanted into a new food environment, entirely different from your own. What would be your problems and concerns regarding what to eat?

Suggested Resources
Unit 4

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92. "Another Man's Poison," Nutrition Today, 8 (September/October, 1973), 22-27.

93. Aykroyd, W.R. The Conquest of Famine. New York: E.P. Dutton, 1975.

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111. Le Bovit, C. "The Changing Pattern of Eating Out," USDA National Food Situation, 144 (1976), 30-34.

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MODULE PRE/POSTTEST

Technological, Sociological, Ecological, and Environmental Factors Related to Food

Student_____

Instructor_____

Date_____

Instructor: You may want to pre- or posttest one unit of this module at a time. You will find each unit having its own questions. This will help you in organizing a test for a student's particular objectives.

Student: Before attempting the pretest, read the module objectives and overview. This pre/posttest, if taken in its entirely, will test your knowledge of the information presented in this module. You need to study only those units that are prescribed on the basis of the test results. It is suggested that you consult the narrative summary, activities, and resource list for each unit regardless of whether the unit activities are required.

Circle the letter in front of the correct answer.

1. Which statements are correct?

   a. Our diets have changed radically during the last fifty years.

   b. Dietary Goals for the United States is recommended for the building of better health for all Americans through better nutrition.

   c. Six of the ten leading causes of death in the United States have been linked to our diet.

   d. What people eat is affected only by what scientists know.

   e. What people eat is not affected by government decisions in area of agricultural policy.

   f. People learn the pattern of their diet only from what is available in the marketplace.

   g. What people eat is also affected by economic and tax policy.

   h. Food availability, advertising, and sociocultural background often influence consumers' food choice.

   i. Nutrition is the end result of pushes and pulls in many directions and is a response to the multiple forces of the environment.

j. In general, Americans do not lack understanding of the consequences of nutrition-related diseases.

k. The food consumption trend cannot be reversed by specific agricultural policies, pricing policies, and marketing policies.

l. The food consumption trend cannot be recersed by the recommendations outlined in the Dietary Goals for the United States.

m. The American marketplace provides easy access to sweet soft drinks, high-sugar cereals, candies, and cakes.

n. People in general have difficult access to foods likely to improve nutrition and health.

o. In general, Americans have quite an accurate perception of sound nutrition principles, according to the Harris poll in Chicago.

p. Once hypertension, diabetes, or arteriosclerosis have developed there is very little that medical science can do to return a person to normal.

2. What are the recommendations as outlined in the Dietary Goals for the United States?

a. Increase saturated fat consumption.

b. Decrease polyunsaturated fat consumption.

c. Increase polyunsaturated fat consumption.

d. Decrease saturated fat consumption.

e. Decrease fruit and vegetable consumption.

f. Increase fruit and vegetable consumption.

g. Decrease sugar consumption.

h. Increase sugar consumption.

i. Increase carbohydrate content to account for 55-60 percent of the energy intake.

j. Decrease carbohydrate content to about 35-40 percent of the energy intake.

k. Reduce overall fat consumption to 30 percent.

l. Increase cholesterol consumption.

m. Decrease cholesterol consumption.

n. Keep salt consumption at the normal level of 3-4 g/day.

o. Decrease salt consumption.

p. Decrease consumption of whole grain and cereals.

q. Increase vegetable and whole grain consumption.

r. Drink only whole milk.

s. Decrease consumption of poultry and fish.

t. Substitute nonfat milk for whole milk.

3. Which are historical food processing techniques (preindustrial era) and still used at present?

a. Smoking	b. Drying	c. Canning
d. Salting	e. Chilling	f. Pasteurizing
g. Fermenting	h. Freeze-drying	i. Freezing
j. Chemical preservation	k. Dairying	l. Pickling

4. Circle the food items available today because of technological advances:

a. Fully-cooked ham	b. All-bran	c. Ketchup
d. Evaporated milk	e. Margarine	f. Enriched bread
g. Tang	h. Iodized salt	i. Shortening
j. Vanilla	k. Canned soups	l. Frozen fruit juice concentrate

5. Circle the incorrect statements:

a. An additive is any substance added, synthetic or not, and not necessarily permitted as a food ingredient.

b. "Natural foods" means any unprocessed foods such as frozen poultry and all-bran cereals.

c. "Health foods" are always good wholesome foods.

d. Foods, even water, are made of chemicals.

e. Salt is organic in nature.

f. Sugar is an organic substance.

g. Mayonnaise is a "natural" and "unprocessed" food.

h. Natural antioxidant exists.

i. Carotene is used as a natural additive.

j. Sugar is used as a natural additive.

k. "GRAS" is a list of all synthetic additives recognized as safe.

l. Caffeine is a synthetic additive in coffee.

m. Aged cheese has a natural food toxicant which can cause headache.

n. Tea is a natural beverage free of any chemical substance.

o. All "natural" foods will not cause any allergy reactions.

6. Our food consumption patterns have changed drastically in the last fifty years. Circle the statements showing the impact of sociological trends related to foods.

a. During the Depression, the food purchasing power of the people increased with the stockmarket crash.

b. Unemployment during the 1930s led to dollar-consciousness in food buying.

c. Regional foods led food trends in 1930s.

d. The improved financial climate encouraged travel in late 1930s, and food trends showed the experimentation with regional and foreign dishes.

e. The relaxed life style after the Depression brought new cooking styles (patio and grill).

f. Life in the 1930s made people choose everyday meals around the most economical dishes like macaroni and cheese, scalloped potatoes, root vegetables, and abundantly available fish.

g. World War II in the 1940s created food shortage. Families had to learn to cope with food and gas rationing.

h. Substituting one food for another becomes a necessity when there is food shortage.

i. Despite shortages, foods in the United States always are improved nutritionally in quality.

j. The impact of war does not change eating habits or life styles.

k. World War II brought technological advances in food: fortified margarine, enriched bread, nonfat dried milk, and dried eggs.

l. The changing life style in the 1940s introduced mixes, oven meals, and speedy cooking.

m. Even during the war, Americans ate more nutritious foods than they ever had before.

n. Home canning flourished in the 1940s because of Victory Gardens.

o. Hamburgers, pizzas, pancakes, and sandwiches exemplified the fast changing life styles of the 1950s.

7. Which statements are not correct?

a. A life style with more leisure time causes the use of fewer convenience foods.

b. Prosperity in the country brings about changes in food styles, eating habits, and cooking methods.

c. The progress of nutrition knowledge in the 1950s made the people less conscious of health.

d. The cholesterol scare of the 1950s did not change anyone's food habit.

e. Weight watching and dieting are national obsessions now, but were not in the last two decades.

f. Foreign or regional travel does not change food habits.

g. Ethnic foods like soul foods remained the foods of the 1960s only.

h. Space food technology does not greatly influence American foods.

i. Americans are influenced little by foods of other countries, especially crêpes or fondue. Neither is widely chosen.

j. Since the 1960s, Americans have turned away from most kinds of salads.

k. Gourmet foods have become part of the American diet.

l. The American people will eat fewer whole grain cereals and flours in the future.

8. Circle the names of foods which Americans will eat more of in the future.

a. Fast foods	b. Honey	c. Whole grains	d. Yogurt
e. Wheat germ	f. Salads	g. Candy	h. Cookies
i. Nuts	j. Natural foods	k. Coffee	l. Beef
m. Dried peas and beans	n. Poultry	o. Sugar	p. Salt
q. Fish			

9. Because of the present ecological and environmental concerns of consumers, what will be the trends of the American food patterns in the years to come?

a. Vegetarianism	b. Natural foods only
c. Less meat	d. Fewer meat and less dairy products
e. Less sugar	f. Less salt
g. More whole grains and cereals	h. More fish
i. Low calorie diet	j. More fruits and vegetables

10. What constitutes the "nutritional environment of foods" which influence the food consumption trends of the population?

a. Various expert opinions, such as Yudkin's "Sweet and Dangerous" and Stare's "Sugar in the Diet of Man."

b. National nutritional policy, especially the Dietary Goals for the United States.

c. A Public Health report stating that about 20 percent of all adults in the United States "are overweight to a degree that may interfere with the optimal health and longevity."

d. A Senate hearing stating that overconsumption of fat, especially saturated fat and cholesterol, sugar, salt, and alcohol, is a leading cause of death from heart disease, cancer, cerebrovascular disease, diabetes, arteriosclerosis, and cirrhosis of the liver.

e. Draught in the Western States possibly, leading to fewer fresh fruits and vegetables.

f. An abundance of high-sugar and high-fat foods, and rich gourmet foods in the marketplace.

g. The consumer's desire for wholesomeness of foods.

h. Rapid transportation system of people and foods.

i. A freeze in Florida decreasing the supply of citrus fruits.

j. The availability of foods along the transit route.

k. The abundance of fast-food establishments.

l. The availability of low-cost foods, regardless of nutritional quality.

m. Subcultural food beliefs and practices.

n. Changing life styles of the consumers.

o. The economic policy of the nation.

p. Advances in food science and technology.

q. Food advertising.

r. Socialization among various groups of people and foods are used to communicate.

s. Regulatory government agencies and government policies concerning food protection and safety.

t. An awareness of the need to preserve natural resources.

u. The energy conservation policy.

v. Medical advice concerning prevention of nutrition-related health problems.

w. Food misinformation through various media.

x. Food and nutrition labeling.

y. Nutrition education in the classroom.

z. Consumerism.

ANSWER KEY
MODULE PRE/POSTTEST

Technological, Sociological, Ecological, and Environmental Factors Related to Food

Instructor:	Do not reproduce this page in students' booklets. You must retain it for grading and prescriptive purposes. Answers will vary with individuals. A preferred response might be similar to the answers presented.

1.	a,b,c,g,h,i,m,n,o,p	10 points
2.	c,d,f,g,i,k,m,o,q,t	10 "
3.	a,b,d,e,g,h,i,j,k,l	10 "
4.	All	12 "
5.	a,b,c,e,g,k,l,n,o	9 "
6.	b,c,d,e,f,g,h,i,k,l,m,n,o	13 "
7.	c,d,e,f,g,h,i,j,l	9 "
8.	a,b,c,d,e,f,i,j,m,n,q	11 "
9.	All	10 "
10.	All	26 "
	Total =	120 "

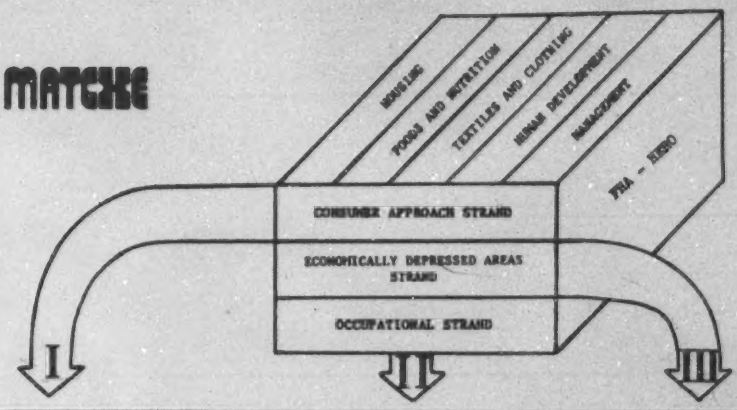
120 pts = A

100 pts = B

80 pts = C

60 pts = D

MATRIX



	I	II	III
A.	CORE: CONSUMER APPROACH TO HOMEMAKING EDUCATION 1 Life Styles and the Consumer 2 Community Consumer Resources 3 Consumer Rights and Responsibilities 4 Incorporating the Consumer Approach in Homemaking Classes	CORE: ESTABLISHING OCCUPATIONAL PROGRAMS 1 Analyzing Job Market Opportunities 2 Developing Occupational Programs 3 Implementing Occupational Programs 4 Evaluating Occupational Programs	CORE: TEACHING HOME ECONOMICS IN ECONOMICALLY DEPRESSED AREAS 1 Characteristics of Economically Depressed Areas 2 Life Style Characteristics of Economically Depressed Areas 3 Community Resources for Economically Depressed Areas 4 Developing and Implementing Programs for Economically Depressed Areas
	AREA (Module) PACKAGES	AREA (Module) PACKAGES	AREA (Module) PACKAGES
B.	HOUSING 1 Consumer Use of the Community 2 Procedures for Selecting a Community 3 Procedures for Selecting Housing 4 Shopping for a Home Loan 5 Procedures for Selecting Furnishings 6 Maintenance Procedures for Surfaces, Furniture, and Appliances	HOUSING 1 Occupational Opportunities Related to Housing and Interiors 2 Required Skills for Retail Sales of Furnishings and Related Household Items	HOUSING 1 Low Income Housing 2 Government Housing Programs 3 Low Income Furnishings
C.	FOODS AND NUTRITION 1 Technological, Sociological, Ecological, and Environmental Factors Related to Food 2 Regulatory Agencies Responsible for Wholesomeness and Quality of Foods 3 Consumer Aspects in Planning Meals 4 Cultural Food Patterns 5 Influences on Food Prices	FOODS AND NUTRITION 1 Occupational Opportunities Related Foods and Nutrition 2 Operations and Activities of a Food Service Operation 3 Managing a Food Service Operation	FOODS AND NUTRITION 1 Food Availability in Economically Depressed Areas 2 Low Income Food Patterns 3 Meal Management on a Low Income
D.	TEXTILES AND CLOTHING 1 Consumer Approach to Textiles and Clothing 2 Sociological, Psychological, and Economic Factors Affecting Clothing Selection 3 Clothing Needs of Individuals 4 Applications and Implications of New Technology in Textiles and Clothing	TEXTILES AND CLOTHING 1 Occupational Opportunities Related Textiles and Clothing 2 Assembly Line Garment Construction 3 Merchandising Textiles and Ready-To-Wear	TEXTILES AND CLOTHING 1 Clothing the Individual and Family 2 Utilizing Resources for Clothing and Textiles
E.	HUMAN DEVELOPMENT 1 Societal Changes Affecting the Family 2 The Relationship Between Spending Patterns and Interpersonal Relationships 3 Financial Pressures in Various Life Styles and Cycles 4 Individuals and Families in Crisis 5 Consumper Aspects of Parenthood	HUMAN DEVELOPMENT 1 Occupational Opportunities Related to Human Development 2 Children's Center Aide 3 Developing Programs for Preschool Children 4 Convalescent Home Aide	HUMAN DEVELOPMENT 1 Characteristics of Economically Depressed Area Families 2 The Child and the Economically Depressed Area Family 3 Resources for the Economically Depressed Area Family
F.	MANAGEMENT 1 Relationship Between National and Consumer Economics 2 Consumer Legislative Issues 3 Environmental Issues and the Consumer 4 Financial Management 5 Family and Individual Credit Management 6 Management View of the Multiple Role 7 The Metric System	MANAGEMENT 1 Occupational Opportunities Related to Home Management and Supporting Services 2 Occupational Preparation for Jobs Utilizing Housekeeping Skills	MANAGEMENT 1 Management Skills 2 Money Management 3 Marketing Practices in Relation to Low Income Clientele